Time: War's New Strategic Frontier

Fighting By Minutes: Time and the Art of War by LTC Robert Leonhard, Praeger Publishers, Westport, Conn. 179 pp. \$47.

First, the bad news... this book costs \$47 at AAFES. This is unfortunate; it means that there will be a lot of money flowing out of professionals' pockets because this is THE premier theoretical work of the past 40 years and is destined to become a classic.

The author, LTC Robert Leonhard, is the U.S. Army's most prolific and outspoken theoretician. His first book, *The Art of Maneuver*, established his reputation as an original thinker. It did, however, begin by following in some rather well-established footprints. This book introduces not only an entirely new perspective about how we should think about war – it also provides us with the conceptual tools we will need to do this.

The premise is deceptively simple: "The most effective way to perceive, interpret, and plan military operations is in terms of time, rather than space." This, in and of itself, is not a difficult concept for the average professional to grasp. Yet, it is in his rigorous analysis of the implications of this shift, from a spatial to a temporal outlook, and how it might affect the conduct of war, that LTC Leonhard truly breaks new ground.

Introducing concepts such as "Leveraging Temporal Asymmetry" and using terms borrowed from physics (e.g. operations within war have a "frequency" and an "amplitude"), this is not a "light read." After almost every page, the reader finds himself setting the book down, digesting what he has read, deciding whether he agrees or disagrees, and actually THINKING about the finer nuances of our profession. This alone justifies the cost.

Despite his newly coined terminology — or perhaps because he uses "borrowed" concepts from other disciplines — LTC Leonhard's book allows the reader to open his mind to the potential new methods of executing war which he proposes. In the past, LTC Leonhard has been accused of using history out of context as a justification for his theories. Yet in this book (which is NOT a history) his use of historical examples in support of his thesis rings true and helps greatly in his explanation of a new method of understanding warfare.

Fighting By Minutes is expensive, no doubt about that. But is IS important. To

read this book is to think *HARD* about our profession. Casual soldiers and leaders should leave this on the shelf; professional warriors should go out and buy a copy today. Read it. Argue about it. Make notes in the margins.

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Books in Brief

Jane's Armour and Artillery Upgrades 1996-1997 (Ninth Edition), Edited by Tony Cullen and Christopher Foss. Jane's Information Group, Alexandria, Va., 665 pp., \$290 (\$795 on CD-ROM).

While few officers are well heeled enough to afford these expensive directories for their personal libraries, the information in them could be invaluable to the combat developer or when deploying to a new theater to face a force that may be an unknown quantity.

Given the astronomical cost of new tanks, many nations have opted for upgrades of earlier equipment that bring capabilities close to, if not equal to, newly developed weapons. More than 300 firms compete in this field, the directory tells us, supplying upgraded armament, ammunition, new engine packages, track and suspension upgrades, drop-in turrets, improved fire controls, and a host of devices to improve protection.

In the tradition of the more familiar Jane's Armour and Artillery, this encyclopedic directory includes the development history, production status, manufacturer, and capabilities of each system. All of this is arranged alphabetically by country of origin.

Useful and expensive, this directory is probably more likely to find its way to library shelves than private libraries, but it is good to know it's available.

Jane's Tank Recognition Guide by Christopher F. Foss. Harper Collins Publishers, Glasgow. 510 pp. \$19.95.

The title here says "tanks," but the content covers all types of AFVs, from tanks to

APCs to self-propelled artillery to wheeled armor. This is a useful armored vehicle reference. The author sought to design a text that helped in vehicle identification and provided key recognition points, as well as useful information, about each type of vehicle. He was successful. It is all in here, logically arranged and succinctly explained. If you ever wanted a copy of Jane's Armor and Artillery, but were scared off by the \$250 price, this is the book you wish they had designed for working guys. I see a place for this book in every S2 shop and on the bookshelf of every armor aficionado. Its design allows it to fit inside a pants cargo pocket, although carrying it there would produce a noticeable limp. Of course, it doesn't contain all of the data found in its hardcover big brother, nor the sheer volume of pictures in the larger volume, but the information it does contain should satisfy those who need it.

Tank Killing: Antitank Warfare by Men and Machines by Ian Hogg. Sarpedon Publishers, New York, 288 pp. \$22.95.

The author, an authority on small arms and the current editor of *Jane's Infantry Weapons* and other similar directories, focuses here on the history of tank killing, making this book a useful addition to the armor soldier's bookshelf.

The chapters are arranged to cover families of weapons — infantry tank killers, antitank guns, tank destroyers, tanks themselves, air weapons directed at tanks, smart weapons, and the desperate measures some defenders employed at the low end of the technology curve, in a chapter entitled "Mines, Traps, and Bare Hands."

Hogg provides a short and very readable history of the development of each approach, explains clearly how each method works, and includes numerous statistics and specifications, so that a reader can compare the effectiveness of the method versus others. Statistics are in metric and English measurements, and include useful facts like ranges, muzzle velocity, and penetration potential. Almost as interesting as the success stories are the fascinating failures, which point up the difficulty of the job.

An interesting, useful book at a reasonable price.

ARMOR STAFF